HCSS Security

The NATO Warfighting Capstone Concept: Key Insights from the Global Expert Symposium Summer 2020

Symposium Chairs: Tim Sweijs & Frans Osinga

Symposium Rapporteurs: Samuel Zilincik, Martijn Vorm, Ivor Wiltenburg

Symposium Producer: Bianca Torossian

Introduction

The story of NATO has been one of great success. The Alliance has prevailed against adversaries as distinct in character as they were dangerous in capabilities. NATO first prevailed against the Soviet Union, and, following the latter's collapse, it confronted a range of threats posed by state and non-state actors. Time and time again, the Alliance met the challenges it encountered.

But past may not be prologue. The military advantage NATO enjoyed in the period immediately following the Cold War is under pressure due to sustained military investment and prolonged technological advancement by near-peer competitors. Great power armed conflict remains a real possibility, with China and Russia actively recalibrating more offensive military postures. Already, allies and partners are subject to persistent attacks across physical and non-physical domains under traditional thresholds of war. Internationalized intrastate conflicts close to the Alliance borders not only come with enormous humanitarian costs but also harness considerable spillover risk to Allied territories.

Against this backdrop, NATO Supreme Allied Commander Transformation (SACT) is developing the NATO Warfighting Capstone Concept (NWCC) to create a vision for Alliance Warfare Development up to 2040 to allow the Alliance to protect NATO's core security interests in the future.

On June 30th 2020, *The Hague* Centre for Strategic Studies (HCSS) and the Netherlands Defense Academy (NLDA), in close collaboration with HQ SACT, hosted a symposium with world-leading experts from both sides of the Atlantic to debate, critique, and refine the propositions presented by HQ SACT in an unclassified read-ahead paper. To inform the experts' discussion, the paper outlined some of the elements and ideas that are being considered in the context of drafting the NWCC.[1]

This symposium report offers a consolidated overview of the rich discussions during this seminar. It is divided into three sections:
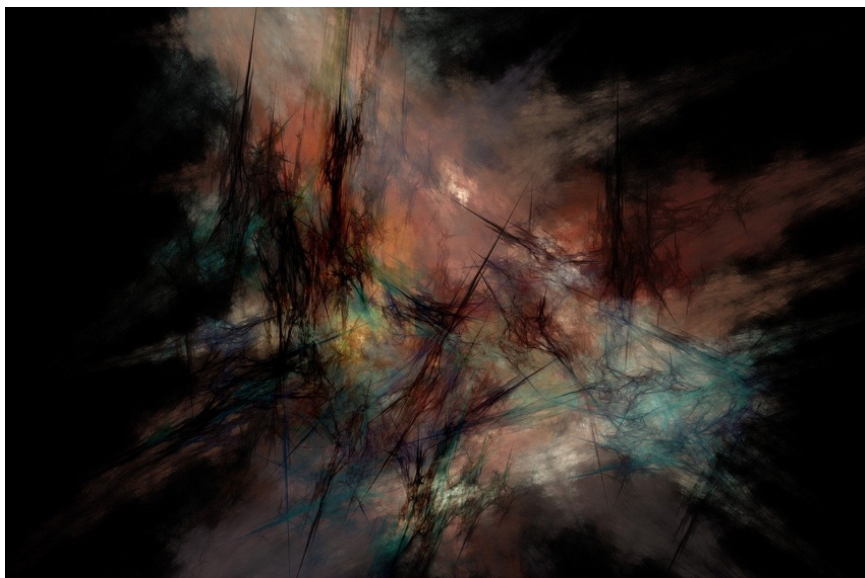
- The first section presents visions on the future character of war and warfare as considered in the context of NWCC as well as those discussed by the panelists.
- The second section describes the warfare development efforts envisaged in the NWCC along with the commentaries offered by the symposium's participants.
- The third and final section identifies three main takeaways and answers the "so what?" question.

---

[1] NATO. 2020. Read-ahead Paper for the Global Expert Symposium on NATO's Warfighting Capstone Concept: Building the Alliance's Decisive Advantage. Click to view the Read-ahead Paper and the Full Symposium Program.

The Future Character of War and Warfare

Amorphous images of future war

The NWCC argues that "the Alliance cannot succeed in tomorrow's fight with yesterday's approach".[2] Tomorrow's conflicts will be characterized by the widening of the battlespace, the fusion of physical and non-physical dimensions, and the rise of borderless warfare. They will include a plethora of actors acting through and across multiple domains. "Competitors will seek to build advantage using diverse, non-kinetic and kinetic means, across operational domains and civil society" and competition "will be persistent and increasingly non-linear." Adversaries will target the Alliance's armed forces and exploit vulnerabilities associated with "open societies".

Tomorrow's conflict will be characterized by the widening of the battlespace, the fusion of dimensions and the rise of borderless warfare.

This is "likely to occur against the backdrop of other security challenges – climate change, pandemics, mass migration – that will place an increasing strain on the Military Instrument of Power (MIoP)."[3] Participants observed that future wars will feature blended forms of interstate, intrastate, and non-state conflict in which kinetic and non-kinetic means will be deployed, in direct confrontations as well as in wars by proxy. Though anticipation of the character of future wars and warfare is fraught with difficulties, some future conflicts are more likely than others, whereas other conflicts will be more consequential. It was argued that wars in the Middle East may be more likely, wars in Asia may be more impactful, while wars in Europe are comparatively less likely.

---

[2] NATO. 2020. Read-ahead Paper, 2.
[3] NATO. 2020. Read-ahead Paper, 2-3.

Guiding principles instead of capstone concept

Beyond these broad generalizations, however, it was also agreed that little can be asserted with any degree of certainty. In preparing for an unknown future it is therefore necessary to choose our words carefully and deploy the right analytical and strategic concepts. Participants called into question the appropriateness of the notion of a capstone concept because it seeks to impose a logical and hierarchical order on the inherently amorphous and non-linear phenomenon of war. It was suggested that it is better to speak of a set of guiding principles which can be flexibly applied to deal with specific challenges.

Future war is plural, but not all future war is equal

In a similar vein, concerns were expressed about our very human tendency to focus on one particular future when, in fact, there are many futures, formed and shaped by the decisions and the actions we take today. Future wars will include societal warfare (focused on disrupting and coercing societies) and cognitive warfare (focused on creating civilian disorder), alongs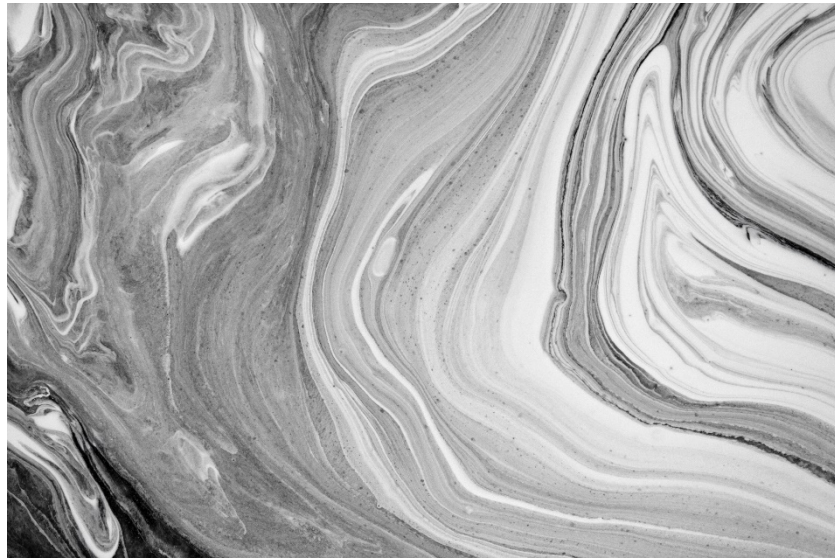ide high-end conventional wars and wars fought by proxy. These wars differ not only in the likelihood of their occurrence but also in their impact; the combination of the two needs to inform prioritization and preparation. Conventional wars may be less probable than cognitive warfare but they tend to have more severe consequences.

> *"There are many futures, formed and shaped by the decisions and the actions we take today"*

The continuing relevance of geography

Geography matters and the Alliance will inevitably pay more attention to the wars in Europe's proximity than to those taking place further away. In addition to deterring Russia, a particular concern in the short term are threats associated with surrogate warfare on the Alliance's immediate periphery and innovative network-centric tactics deployed by compound actors. In the longer term, this euro-centric bias may be dangerous because wars in other regions, especially in Asia, could gravely affect the security of individual member states. Participants pointed out that many questions remain about the effects of rivalry and conflict in the Asian theatre on the Alliance, including the role of European Allies in potential Asian wars and what the subsequent shift in US priority will mean for the regional balance of power in the European theatre.

Beyond the Manichean

Participants suggested that traditional Manichean and dichotomous understandings of the world, which are encouraged by the use of terms such as war, battle, victory, and adversary, are not well suited to future contexts in which competitors may be both adversaries in one arena but partners in another. Instead of binary frameworks, panelists proposed to approach future conflict using more holistic prisms. At the same time, participants stressed the importance of clarity when it concerns identifying political objectives and formulating specific theories of victory in accordance with these objectives.

As opposed to binary (war/peace, ally/enemy) frameworks, the Alliance needs to approach future conflict using more holistic prisms.

Creativity, diversity and tenacity

Participants suggested that the Alliance needs to nurture a culture of intellectual creativity and diversity. It needs to actively promote exceptional individuals in recognition of the role of ingenuity and tenacity in driving innovation. These two elements are mutually reinforcing: it is within an intellectually creative and diverse culture that exceptional individuals are likely to emerge and these people will then subsequently further propagate an environment conducive to exceptionalism. That is the greatest advantage the Alliance can have over its adversaries because it will foster ideas that allow the Alliance to develop the right capabilities to succeed in future war and achieve cognitive superiority vis-à-vis its adversaries.

Carl von Clausewitz sitting on a tripod stool playing with Lego

To deal with uncertainty, the Alliance needs to be agile. This agility requirement is captured by the powerful metaphor, suggested by one of the participants, of Carl von Clausewitz sitting on a tripod stool while playing with Lego. Here, Clausewitz represents the idiom of understanding the character of future war; the tripod stool refers to the balance among the *ends*, *ways*, and *means*; and Lego stands for the available resources that need to be treated in agile ways to achieve particular political objectives. The ends and means of particular wars will always depend on the types of challenges; on political dynamics within the Alliance; and on available resources. Accordingly, in

preparing for future warfighting, the Alliance will need to pay extra attention to the *ways* so that it can achieve the politically dictated *ends* with the allocated *means* which will vary from one context to another.

The Alliance needs to pay extra attention to the ways of achieving politically dictated ends with the allocated means.

Warfare Development Imperatives

To ensure a broad portfolio of means and to broaden the spectrum of potential ways, the NWCC identifies five Warfare Development Imperatives (WDI): cognitive superiority, cross domain command, influence and power projection, integrated multi-domain defense, and layered resilience. To achieve these imperatives, the NWCC recommends the development of key enablers, such as "the right people with the right skills..." as well as "those technologies that can have a game-changing impact and master big data and advanced analytics".[4]
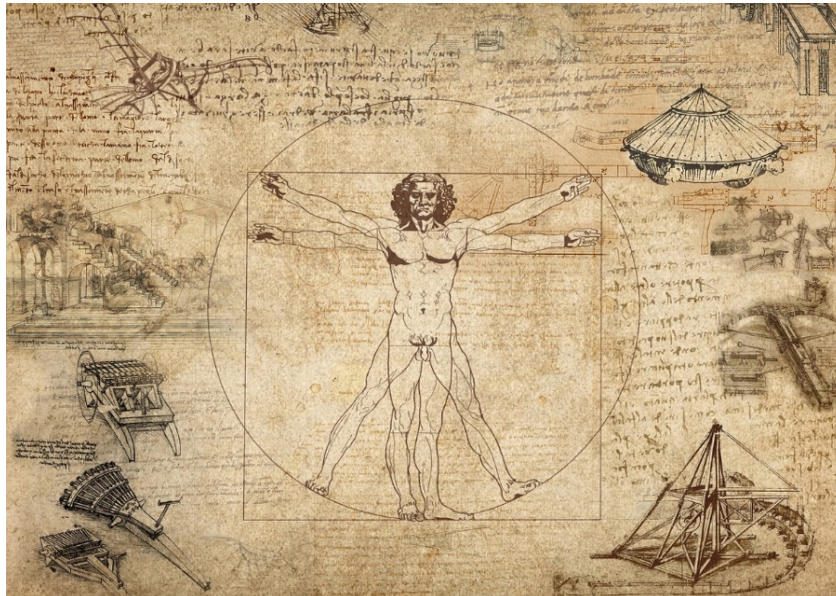
Cognitive superiority

First and foremost, the NWCC advocates the pursuit of cognitive superiority. This imperative stands for "ability to shape, contest or fight" by "expanding knowledge and understanding of competitors' actions, as well as its own goals and options to achieve them".[5] It is the combination of human intellect and technology that breeds cognitive superiority. The concept itself emphasizes the technological opportunities that should be harnessed to achieve the imperative of cognitive superiority.

---

[4] NATO. 2020. Read-ahead Paper, 5.

[5] NATO. 2020. Read-ahead Paper, 4.

In general, the symposium's participants recognized the importance of cognitive superiority in war and acknowledged that the Alliance was well-positioned to achieve cognitive superiority over potential adversaries. In addition to exploiting technological assets, the participants stressed that this advantage accrues from the fact that our societies advocate education, critical thinking and the free flow of ideas, rather than from solely technological assets. The Alliance should recognize this, nurture the human factor, and refrain from overemphasizing technology at the expense of people.

The Alliance has an advantage over adversaries thanks to the fact that our societies advocate education, critical thinking and the free flow of ideas.

To this end, participants advocated a dual-track approach which values intellectual excellence, diversity, and inclusion, alongside equal recognition of the opportunities offered by new technologies to achieve cognitive superiority. New technologies can be used to collect and process ever-increasing amounts of data, which can then be contextualized and analyzed by cross-disciplinary teams of well-informed and highly educated human operators. Cognitive superiority hinges on the ability to learn not only from our own mistakes but also from the mistakes of others. While our adversaries might emulate or develop our technological means, replicating the intellectual freedom and diversity that the Alliance enjoys will be a tall order for them. That is a strength that NATO needs to leverage.

Cross-domain command

Second, the NWCC stresses that commanders should be able to "operate in a complex battlespace simultaneously across physical and non-physical domains." In line with the Clausewitzian notion of military genius, the concept advocates "the development of cross-domain insight *'coup-d'oeil'*" that is "to be nurtured through doctrine, training, education and leadership development." Cross-domain command should be enabled by the 'science of control', that revolves around speed, continuity and dispersion.[6]

---

[6] NATO. 2020. Read-ahead Paper, 4.

Participants observed that cross domain command will be made both more difficult and easier in the future. First and foremost, it is more difficult because of the constant overflow of information. The massive and pervasive information environment may fundamentally change the way cognitive effects are pursued. Ultimately, it is an environment in which different actors operate, not a domain where dominance can be achieved. Furthermore, there are gradually evolving ethical and legal restraints on what is allowed on the battlefield, which is closely monitored because of the ubiquitous presence of (social) media.

Commanders should be able to operate in a *complex* battlespace simultaneously across physical and non-physical domains.

This is exacerbated by the fact that the command space has greatly expanded to include many non-military tasks and coordination with non-military organizations. At the same time, it was suggested that some aspects render the exercise of command across domains easier. For one, because of greatly improved reconnaissance capabilities, commanders will possess far superior situational awareness about factors such as the topography of the battlefield or the positions of the adversary. Participants also suggested that strategic compression and cross domain integration require a greater emphasis on networked units which operate differently from twentieth-century top-down hierarchical structures, as well as greater investment in stealth technologies, to strengthen the ability to operate in dispersed formations and escape enemy fire. Finally, despite all the promises of new C4SIR (Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance) technologies and cross domain concepts, it was pointed out that future war will continue to feature friction and uncertainty which requires flexibility and adaptivity.

Influence and power projection

Third, the NWCC calls for the development of power projection capabilities. Accordingly, the concept states that "The Alliance MIoP will need to possess a spectrum of non-lethal, non-kinetic to lethal kinetic all-domain options to shape the battlespace to NATO's strengths[7]." It goes on to stress the importance of long-range strike capabilities that can create deterrent and containing effects in the minds of potential adversaries.

---

[7] NATO. 2020. Read-ahead Paper, 4.

The participants' discussion yielded insights into how the Alliance may project both military and non-military power. If one thing is clear, it is that influence and power projection in the future security environment require much more than engaging in multinational exercises and moving military formations to global hotspots. The application of power and the exercise of influence by NATO and its member states to achieve political ends will continue to be based in hard power capabilities projection, but needs to be complemented with a much more finely grained understanding of how tools of influence can be wielded, including in the information domain.

> *"The Alliance MIoP will need to possess a spectrum of non-lethal, non-kinetic to lethal kinetic all-domain options"*

The projection of soft power relies on carefully calibrated targeting, leveraging domain- and audience-specific instruments. A better understanding of human psychology, it was suggested, will enable NATO to reach those they want to influence, with participants conjuring the image of a marksman's rifle rather than a volley-gun. Given prevailing understandings of war and warfighting capabilities, the strategic utility of such tools of influence is greatly underappreciated in the Alliance.

The ability to project hard power remains fundamental and needs to be maintained and modernized. Participants expected nuclear weapons to continue to play a vital role in deterring armed aggression, even if they will not deter competition for the advantage which will be inherently cross domain in nature. In this context, participants pointed to the need to develop potent counter A2AD (Anti-Access and Area Denial) capabilities in response to adversarial A2AD capabilities to be able to project military power in contested regions building on cutting edge technological advancements. The Alliance will need to plug those capability gaps which have been repeatedly pointed out in priority shortfall lists, amongst which precision engagement capabilities, suppression of enemy air defenses, electronic warfare, stealth capabilities, strategic transport, and C4ISR. In contrast to the pre-2014 period, however, when overreliance on US capabilities was typically perceived as merely a political embarrassment for European leaders, in the current strategic environment this capability gap erodes the deterrence credibility of NATO.

Integrated multi-domain defense

Fourth, the NWCC stresses the importance of multi-domain defense. The NWCC asserts that "the Alliance's current defensive posture is largely an episodic construct, which is switched on and -off through a series of political and military decision points, following pre-existing plans." The NWCC further points out that this approach does not suffice in "an era of persistent competition" when "'Day Zero' is every day".[8]

To prevail in persistent competition, the Alliance needs to be able to respond effectively and in a timely fashion, according to participants. Prolonged deliberations on the political level give adversaries the time to generate strategic *faits accomplis*, with Russia's annexation of the Crimea providing a case in point. Therefore, a posture of

---

[8] NATO. 2020. Read-ahead Paper, 4.

constant readiness across all domains is necessary. Delegation of duty along the chain of command is crucial, which speaks to the importance of independent judgement at all levels of war as well as to the existence of mutual trust between operators active at these different levels.

> ## *"Political leaders fail to offer adequate political guidance to their armed forces"*

Threats will not only manifest themselves militarily but also through political, economic and societal dimensions. As participants pointed out, countering the broad spectrum of threats requires cohesion. Adversaries will therefore try and target cohesion to undermine NATO. Relatedly, the co-existence of a military, a political, and a societal crisis was observed. This three-pronged crisis needs to be addressed because otherwise it affects the cohesion of the entire Alliance. The first crisis pertains to the lack of confidence within the military because there is no clear vision of what constitutes victory in contemporary wars. As a result, armed forces are no longer sure about the purpose of their actions, which directly takes away from their *raison d'etre*. This is directly related to the second political crisis which manifests itself in governments that draw clear lines between military and civilian spheres, typically because they lack a proper understanding of the military realm. As a result, political leaders fail to offer adequate political guidance to their armed forces. The third crisis is societal: the fact that professional armed forces are responsible for the fighting while the vast majority of Allied populations possess limited knowledge of and even less affinity with the conduct of war, drives a wedge between the professional armed forces and the societies they are tasked to protect. Resolving these crises is necessary to improve the cohesion of the Alliance.

Layered resilience

Fifth, the NWCC recommends the development of layered resilience. In order to sustain long and protracted campaigns, which are likely to occur regardless of the Alliance preferences, the NWCC calls for reconstructing "layered resilience". Three mutually reinforcing "layers" of resilience are distinguished in the NWCC: military resilience, military-civil resilience and civilian resilience. Military resilience conveys "those ready forces and capabilities and redundancy that the MIoP requires to ensure its ability to absorb shocks, provide for early resistance and fight through." Military-civilian resilience refers to "those plans, processes, and connections that must be in place to ensure that civilian support and infrastructure, transport and logistic supplies are a strength rather than vulnerability". Finally, civilian resilience stands for "the civil ability to deny competitors the ability to unlock civil vulnerabilities and distract/overstretch the MIoP, as well as those forces and capabilities that MIoP will be expected to deploy in support of civilian society in the case of natural or man-made disasters, as well as to shield the society from malign activities of competitors."[9]

---

[9] NATO. 2020. Read-ahead Paper, 4-5.

The NWCC calls for layered resilience, consisting of three reinforcing layers of resilience: military, military-civil and civilian resilience.

Unfortunately, according to participants, all three layers are in a state of disrepair. The armed forces of individual member states face significant shortages not least in the field of critical military capabilities, for example, state of the art C4 systems. These deficits must be addressed to strengthen military resilience. The picture of military-civilian resilience is equally bleak according to some participants. Much of the civilian infrastructure that could support military operations was dismantled in the decades since the Cold War. As a result, military units and equipment can simply not be transported across Europe in large numbers to strengthen NATO military's conventional force posture. Participants also suggested that we need to think more about the role of our citizens and their potential to contribute to the security of the Alliance. To foster civilian resilience, NATO must not only build and actively communicate the Alliance's narrative but also actively strive towards greater diversity and inclusion in the ranks of armed forces' personnel.

Three Main Takeaways

The future of war does not yet exist. It will be created by Allies and adversaries in the years to come. We do not know the time nor the geographical location of future conflict. Plenty of uncertainty remains about its most salient characteristics. Preparation is therefore key both to shape that future environment and to be able to adaptively meet conflict challenges of tomorrow. Amidst the treasure trove of insights generated during the symposium, three points related to future preparation stood out: 1) cognitive superiority, 2) full-spectrum engagement, and 3) agile ways of adaptation. These points need to guide the Alliance's future capability development so that it can continue to defend and protect the interests and values of the Members of the Alliance.

First and foremost, cognitive superiority will allow NATO to outcompete opponents in the conflict environment of 2040. To achieve that, the Alliance needs to harness intellectual excellence, creativity and diversity, and adapt twentieth-century strategic concepts to address tomorrow's strategic challenges. This requires the bundling of hard cutting edge technology and soft human skills and expertise.

> *"It is imperative to seamlessly integrate military but also non-military instruments in the pursuit of influence"*

Second, the Alliance needs to develop full-spectrum engagement capabilities. Since future wars will feature a variety of warfare modes, it is imperative to seamlessly integrate military but also non-military instruments in the pursuit of influence. Most competitive efforts are likely to be conducted through and across multiple domains, both offensively and defensively. Accordingly, the development of cross-domain command capabilities is of paramount importance. This necessitates an appreciation of the interaction between traditional and new military domains and their close relationship with non-military competition pursued by diplomatic, information and economic means. It also involves the persistent influence efforts before actual violent confrontation takes places to constantly shape the competitive space both by military and civilian elements.

Third, in terms of future preparation, it is important to pay particular attention to the ways in which future means are deployed to attain objectives. Future wars differ in the likelihood of their manifestation as well as in their consequences. The Alliance cannot effectively defend against all possible threats all the time. It therefore needs to constantly adapt to evolving circumstances and it needs to be agile in the ways it pursues that adaptation. Only by flexibly adjusting the ways to the particular context at hand can the Alliance deal with the diverse spectrum of challenges. The successful and agile execution of suitable ways will ultimately depend on human factors; on the ability of exceptional individuals to push their visions through, and on the willingness of the broader society to support these necessary adaptations.

So what?

The ideas proposed by the concept are but a starting point. The Capstone document may be instrumental in providing a necessary coherent framework explaining why capabilities are needed and how they will be employed. Real resources need to be harnessed to enable the development of integral capabilities. Although the Alliance needs to move ahead if it is to keep the pace with the changing character of war and warfare, its actions also need to be grounded in the realities on the ground. We should not allow the often attractive but ultimately unfeasible ideas hijack the Alliance to Wonderland. After all, as Clausewitz points out on the final page of his work, "who sacrifices the possible in search of the impossible is a fool."[10] If the Alliance hopes for a successful continuation of its own story then it needs to do much more than putting forward a set of ideas. It needs to implement them in the real world that is messy and complex, full of chance and friction, competing political desires at the home front and adversaries trying to frustrate that implementation. The historical track-record of the Alliance shows that success in this regard is possible but not guaranteed.

> *"We should not allow the often attractive but ultimately unfeasible ideas hijack the Alliance to Wonderland"*

---

[10] Carl von Clausewitz, *On War*, ed. Michael Howard and Peter Paret, Tenth Printing (US) (Everyman's Library by arrangement with Princeton University Press, 1993), 771.